

**FRIEDMAN & BRUYA, INC.**

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**ENVIRONMENTAL CHEMISTS**

Date of Report: 08/13/98

Date Received: 08/06/98

Project: Metro Self Monitor, PO# M119009

Date Samples Extracted: 08/11/98

Date Extracts Analyzed: 08/12/98

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE  
FOR CHROMIUM, COPPER, NICKEL, ZINC  
USING METHOD 6010**

**Samples Processed Using Method 3005A**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M119009	0.58	0.29	0.56	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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## ENVIRONMENTAL CHEMISTS

Date of Report: 08/13/98

Date Received: 08/06/98

Project: Metro Self Monitor, PO# M119009

### QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 808021-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.58	0.72	22vo	0-20
Copper	mg/L (ppm)	0.29	0.32	10	0-20
Nickel	mg/L (ppm)	0.56	0.61	9	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 808021-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	0.58	86	106	80-120	21vo
Copper	mg/L (ppm)	5	0.29	97	91	80-120	6
Nickel	mg/L (ppm)	10	0.56	90	93	80-120	3
Zinc	mg/L (ppm)	5	<0.05	87	90	80-120	3

Laboratory Code: Laboratory Control Sample

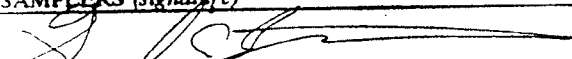
Analyte	Reporting Units	Spike Level	% Recovery LCS	% Recovery LCSD	Acceptance Criteria	RPD
Chromium	mg/L (ppm)	5	103	101	80-120	2
Copper	mg/L (ppm)	5	97	97	80-120	0
Nickel	mg/L (ppm)	10	102	101	80-120	1
Zinc	mg/L (ppm)	5	99	99	80-120	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.



vo - The value reported fell outside the control limits established for this analyte.

808021 MM BL  
8/6/98  
1025  
USTODY

8/6/98  
1025

SITE NO.		PROJECT NAME		PURCHASE ORDER #	
7238		metro Self monitor		m 119009	
SAMPLERS (signature)				PROJECT LOCATION	
				3200 6th Ave S.	
REMARKS				SAMPLE DISPOSAL INFORMATION	
				<input type="checkbox"/> Dispose after 30 days	
				<input checked="" type="checkbox"/> Return Samples	
				<input checked="" type="checkbox"/> Call for Instructions	

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald A. Thompson	ACW	8/6/88	10:15 AM
Received by: 	Olga Mayday	F & B Inc.	8/6/88	10:15
Relinquished by:				
Received by:				

**FRIEDMAN & BRUYA, INC.**

**ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D.  
Charlene Jensen, M.S.  
Bradley T. Benson, B.S.  
Kurt Johnson, B.S.

3012 16th Avenue West  
Seattle, WA 98119-2029  
TEL: (206) 285-8282  
FAX: (206) 283-5044  
e-mail: fbi@isomedia.com

August 13, 1998

**DUPLICATE COPY**

**INVOICE #98ACU0813-1**

Accounts Payable  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M119009: Results of testing  
requested by Gerry Thompson for material submitted on August 6, 1998.

1 water sample analyzed for  
Chromium, Copper, Nickel, and Zinc  
using Method 6010 @ \$65 per sample

\$ 65 .00

Amount Due .....

\$ 65.00

FEDERAL TAX ID (b) (6)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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3012 16th Avenue West  
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TEL: (206) 285-8282  
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e-mail: fbi@isomedia.com

August 13, 1998

Gerry Thompson, Project Manager  
Alaskan Copper Works  
628 South Hanford St.  
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on August 6, 1998 from your Metro Self Monitor, PO# M119009 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Manuel Marti  
Project Manager

Enclosures  
ACU0813R.DOC